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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,898	12/13/2005	David W Morris	PP23367.0003/20366-020US1	1969
55255	7590	02/28/2008		
Novartis Vaccines and Diagnostics, Inc. Corporate Intellectual Property P.O. BOX 8097 EMERYVILLE, CA 94662-8097			EXAMINER	
			DAVIS, MINH TAM B	
			ART UNIT	PAPER NUMBER
			1642	
MAIL DATE	DELIVERY MODE			
02/28/2008	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,898	<b>Applicant(s)</b> MORRIS ET AL.
	<b>Examiner</b> MINH-TAM DAVIS	<b>Art Unit</b> 1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 07 December 2007.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-74 is/are pending in the application.

4a) Of the above claim(s) 27,29 and 32-38 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) \_\_\_\_\_ is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 1-26,28,30,31 and 39-74 are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

Claims 1-74 are pending.

Claims 27, 29, 32 and its dependent claims 33-38 have been withdrawn from consideration. The claims are drawn to a polynucleotide or a method for screening cancer, by detecting a polynucleotide. However, the cited sequences are polypeptides, not polynucleotides.

Accordingly, claims 1-26, 28, 30-31, 39-74 for subjected to the following restriction requirement.

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group A, claim(s) 1-15, 28, 30, drawn to the nucleic acid SEQ ID NO:607.

Group B, claim(s) 1-15, 28, 30, drawn to a nucleic acid as recited in claim 1. Each nucleic acid constitutes a single, distinct invention.

Group C, claims 16-20, 31, drawn to a protein as recited in claim 16. Each protein constitutes a single, distinct invention.

Group D, claims 21-26, drawn to an antibody to a protein as recited in claim 16. An antibody to each protein constitutes a single, distinct invention.

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Group E, claims 39-40, 61-68, drawn to a method for detecting cancer, by detecting a protein as cited in claim 39, or a combination thereof. A method for detecting each cancer, as recited on pages 7-9 in the specification, using each protein, or each combination thereof constitutes as single, distinct invention.

Group F, claim 40, drawn to a method for detecting cancer, by detecting a serum antibody to a protein as cited in claim 39. A method for detecting each cancer, as recited on pages 7-9 in the specification, using an antibody to each protein constitutes as single, distinct invention.

Group G, claims 42-43, 45, drawn to a method for screening an inhibitor of the transcription of the encoding nucleic acid as recited in claim 42, which inhibitor is a modulator of the sequences cited in claim 45. A method using each modulator of the sequences cited in claim 45, for testing each nucleic acid recited in claim 42 constitutes a single, distinct invention.

Group H, claims 42-44, 46, drawn to a method for screening a modulator of a protein, encoded by a nucleic acid as recited in claim 42, which modulator is an antagonist of a G-protein coupled receptor protein, and modulates of the activity of the sequences cited in claim 46. A method using each modulator of the sequences cited in claim 46, for testing each protein recited in claim 42 constitutes a single, distinct invention.

Group I, claims 42-44, 47, drawn to a method for screening a modulator of a protein, encoded by a nucleic acid as recited in claim 42, which modulator is an antagonist of a calcium binding protein, and modulates of the activity of the sequences

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cited in claim 47. A method using each modulator of the sequences cited in claim 47, for testing each protein recited in claim 42 constitutes a single, distinct invention.

Group J, claims 42-44, 48, drawn to a method for screening a modulator of a protein, encoded by a nucleic acid as recited in claim 42, which modulator is an antagonist of a ubiquitin cycle protein, and modulates of the activity of the sequences cited in claim 48. A method using each modulator of the sequences cited in claim 48, for testing each protein recited in claim 42 constitutes a single, distinct invention.

Group K, claim 49, 56-63, 66-74, drawn to a method for drawn to a method for detecting cancer, by detecting a nucleic acid as cited in claim 49, or a combination thereof. A method for detecting each cancer, as recited on pages 7-9 in the specification, using each nucleic acid, or each combination thereof constitutes as single, distinct invention.

Group L, claims 50, 52, drawn to a method for treating cancer, using an inhibitor of the transcription of the encoding nucleic acid as recited in claim 50, which inhibitor is a modulator of the sequences cited in claim 52. A method for treating each cancer as recited on pages 7-9 of the specification, using each modulator of the sequences cited in claim 52, which inhibits the transcription of each nucleic acid recited in claim 50 constitutes a single, distinct invention.

Group M, claims 50-51, 53, drawn to a method for treating cancer, using an inhibitor of a protein cited in claim 50, which inhibitor is an antagonist of a G-protein coupled receptor protein, and modulates of the activity of the sequences cited in claim 53. A method of treating each cancer as recited on pages 7-9 of the specification, using each

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modulator of the sequences cited in claim 53, which inhibits each protein recited in claim 50 constitutes a single, distinct invention.

Group N, claims 50-51, 54, drawn to a method for treating cancer, using an inhibitor of a protein cited in claim 50, which inhibitor is an antagonist of a calcium binding protein, and modulates of the activity of the sequences cited in claim 54. A method for treating each cancer as recited on pages 7-9 of the specification, using each modulator of the sequences cited in claim 54, which inhibits each protein recited in claim 50 constitutes a single, distinct invention.

Group O, claims 50-51, 55, drawn to a method for treating cancer, using an inhibitor of a protein cited in claim 50, which inhibitor is an antagonist of a ubiquitin cycle protein, and modulates of the activity of the sequences cited in claim 55. A method for treating each cancer as recited on pages 7-9 of the specification, using each modulator of the sequences cited in claim 55, which inhibits each protein recited in claim 50 constitutes a single, distinct invention.

The inventions are distinct, each from the other because of the following reasons:

According to PCT Rule 13.2, unity of invention exists only when the shared same or corresponding technical feature is a contribution over the prior art. The inventions listed as groups A-O do not relate to a single general inventive concept because they lack the same or corresponding special technical feature. A nucleic acid molecule comprising at least 10 nucleotides of SEQ ID NO:607 of group A is shown to be the same as the nucleic acid molecule SEQ ID NO:19, taught by Tang et al (US 6,743619), which is 99.5% similar to SEQ ID NO:607 (MPSRCH search result, 2008, us-10-540-898-607.rni,

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result 1, pages 1-5). Thus the claimed invention lacks novelty and does not make a contribution over the prior art.

## MPSRCH search result, 2008, us-10-540-898-607.rni, result 1, pages 1-5

RESULT 1  
US-09-774-528-19  
; Sequence 19, Application US/09774528  
; Patent No. 6743619  
; GENERAL INFORMATION:  
; APPLICANT: Tang, Y. Tom  
; APPLICANT: Zhou, Ping  
; APPLICANT: Goodrich, Ryle  
; APPLICANT: Liu, Chenghui  
; APPLICANT: Asundi, Vinod  
; APPLICANT: Ren, Feiyan  
; APPLICANT: Zhang, Jie  
; APPLICANT: Zhao, Qing A.  
; APPLICANT: Yang, Yonghong  
; APPLICANT: Xue, Aidong J.  
; APPLICANT: Wehrman, Tom  
; APPLICANT: Wang, Jian-Rui  
; APPLICANT: Wang, Dunrui  
; APPLICANT: Drmanac, Radoje T.  
; TITLE OF INVENTION: No. 6743619el Nucleic Acids and  
; TITLE OF INVENTION: Polypeptides  
; FILE REFERENCE: 802  
; CURRENT APPLICATION NUMBER: US/09/774,528  
; CURRENT FILING DATE: 2001-01-30  
; NUMBER OF SEQ ID NOS: 441  
; SOFTWARE: pt\_PL\_genes Version 2.0  
; SEQ ID NO 19  
; LENGTH: 4808  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (818)..(2359)  
US-09-774-528-19

Query Match 99.5%; Score 3821; DB 3; Length 4808;  
Best Local Similarity 99.8%; Pred. No. 0;  
Matches 3835; Conservative 0; Mismatches 5; Indels 1; Gaps 1;

Qy 1 TGTTCACACTGATTCTCGTGACTTTAAAGGACAGGGATTGAGAGGTATTAGCTCTTC 60  
DB |||||||  
Dy 173 TGTTCACACTGATTCTCGTGACTTTAAAGGACAGGGATTGAGAGGTATTAGCTCTTC 232

Qy 61 CCAAGGAGGGAGGAAGTTCTGGAGAGAGAGGGAAAGCAGCAGCAGACGCTGCGCTGGGAC 120  
DB |||||||  
Dy 233 CCAGGAAGGGAGGAAGAGTTCTGGAGAGAGAGGGAAAGACGGCAGACGCTGCGCTGGGAC 292

Qy 121 AGCAGAGCCTGAGGAGCTGTGGGAAGCTGACAGAGCCAGCAGCAAAGGAGCGGGAGGAGC 180  
DB |||||||  
Dy 293 AGCACAGCCTGAGGAGCTGTGGGAAGCTGACAGAGCCAGCAGCAAAGGAGCGGGAGGAGC 352

Qy 181 CGCAGCCCCCAGGCTGGACTGTGTTCTGAAAGATTGAACTCAAGCTGCTTTTACGGAA 240  
DB |||||||  
Dy 353 CGCAGCCCCCAGGCTGGACTGTGTTCTGAAAGATTGAACTCAAGCTGCTTTTACGGAA 412

Qy 241 GAGGGGCCACTTCAGAGGGCACCCCAAGAATTGGTTGAGCTCTACTCTGGATGCC 300  
DB |||||||  
Dy 413 GAGGGGCCACTTCAGAGGGCACCCCAAGAATTGGTTGAGCTCTACTCTGGATGCC 472

Qy 301 CTGCTCTGAGGAGCCTGCCACTGAGAACCAAGAGATAAGAGGACAGATACTTTCTT 360

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Db	473	CTGCTCTGAGGAGCCACTGCCACTGAGAACCAAAGAACATAAGAGGACAGATACTTTTCTT	532
Qy	361	CAAGCACAGAGCTGGGGTTGGAGTCAGGCATCTGCCACCCCTAGGGCTGCTGGCTAG	420
Db	533	CAAGCACAGAGCTGGGGTTGGAGTCAGGCATCTGCCACCCCTAGGGCTGCTGGCTAG	592
Qy	421	GAATTTCTTGTCTTCCAGCTTGGGGCTGAGTCAGGCATCTGCCACCCCTAGGGCTGCTGG	480
Db	593	GAATTTCTTGTCTTCCAGCTTGGGGCTGAGTCAGGCATCTGCCACCCCTAGGGCTGCTGG	652
Qy	481	ATCAGTTTGCACTGGCTGGAGTCAGGAGACGGCTGGGAAGAGGCTCTGGCCGCC	540
Db	653	ATCAGTTTGCACTGGCTGGAGTCAGGAGACGGCTGGGAAGAGGCTCTGGCCGCC	712
Qy	541	AAGCTGGTACCCCAAAGACTAAAGTTCTTCCAACTGAGTAGAGAACAGAGAACAGCA	600
Db	713	AAGCTGGTACCCCAAAGACTAAAGTTCTTCCAACTGAGTAGAGAACAGAGAACAGCA	772
Qy	601	AAAAGAAGAGAGAAAGTCTCCCTCCCTCCCTGGCTGCTCATGCTCTAAAGCCA	660
Db	773	AAAAGAAGAGAGAAAGTCTCCCTCCCTCCCTGGCTGCTCATGCTCTAAAGCCA	832
Qy	661	GAGCCGAAGACGTCACCAACTGAACGGACTGGCCCTCTCCCTCCCTGCTTC	720
Db	833	GAGCCGAAGACGTCACCAACTGAACGGACTGGCCCTCTCCCTCCCTGCTTC	892
Qy	721	GATGCCCAAGGGAGAGAGCCCTGGCTGGGACCTCAGAGTTCTGGGCCATGATGGCC	780
Db	893	GATGCCCAAGGGAGAGAGCCCTGGCTGGGACCTCAGAGTTCTGGGCCATGATGGCC	952
Qy	781	GGGGTAGAGGTGGTATTGAGTCGGGCCAACGCCAACGGGGTTGGGAGGACGCC	840
Db	953	GGGGTAGAGGTGGTATTGAGTCGGGCCAACGCCAACGGGGTTGGGAGGACGCC	1012
Qy	841	CTCTGGAGAACGGAGCCAGACGAACTGAGCACGTCAGCACAGACCGTGCCCT	900
Db	1013	CTCTGGAGAACGGAGCCAGACGAACTGAGCACGTCAGCACAGACCGTGCCCT	1072
Qy	901	GGCCACCTCCCGCTCAAGGAGACCTCTTCCATCGGGCTGCAAGTACTGTTCCA	960
Db	1073	GGCCACCTCCCGCTCAAGGAGACCTCTTCCATCGGGCTGCAAGTACTGTTCCA	1132
Qy	961	TTCTCTTGGCAGGGTTGGGACCGCTGGCTGCTGGCATGTTGGACATGTTGAGAC	1020
Db	1133	TTCTCTTGGCAGGGTTGGGACCGCTGGCTGCTGGCATGTTGGACATGTTGAGAC	1192
Qy	1021	TGGGAGTCTCCAGAGGTGACAGAGCTCTCATCTAGTGGCTGCCCTGCTGGGCTC	1080
Db	1193	TGGGAGTCTCCAGAGGTGACAGAGCTCTCATCTAGTGGCTGCCCTGCTGGGCTC	1252
Qy	1081	AAAGGGACCTGGAAATGACCTGGCATCAAGGCTTCCACTGAGCCAAACATTGGACAC	1140
Db	1253	AAAGGGACCTGGAAATGACCTGGCATCAAGGCTTCCACTGAGCCAAACATTGGACAC	1312
Qy	1141	ATGGACACACCAAGGAGCTGGGGATGACTGGGAACTGGGCCATCCAGGCT	1200
Db	1313	ATGGACACACCAAGGAGCTGGGGATGACTGGGAACTGGGCCATCCAGGCT	1372
Qy	1201	CAGGCCACGGTGGTGGCTTCTGGCTTCCATGCCAGGGCTGCTTGGCTGGATCCCT	1260
Db	1373	CAGGCCACGGTGGTGGCTTCTGGCTTCCATGCCAGGGCTGCTTGGCTGGATCCCT	1432
Qy	1261	GATGCCACTCAGTATCCGACGGCTTCTGGCTGCTGCTGCTGCTGGGCCACAGCC	1320
Db	1433	GATGCCACTCAGTATCCGACGGCTTCTGGCTGCTGCTGCTGCTGGGCCACAGCC	1492
Qy	1321	TTCATTGGCTCCCTGGTACTGGGTATGATCATGATTGGAGTCATATTGGCTCTGGCAAG	1380

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DB	1493	TTCATTGCCCTCCCTGGTACTGGGTATGATCATGATTGGAGTCATCATTGGCTCTCGAAG 1552
Qy	1381	ATTGGGATCACCCAGACACGCTGGGACACCCATTGCTGGCAGCTGGGGACCTCATC 1440
DB	1553	ATTGGGATCACCCAGACACGCTGGGACACCCATTGCTGGCAGCTGGGGACCTCATC 1612
Qy	1441	ACCTTGGCGCTGCTCTCAGGCATCAGCTGGGGACTCTACCTGAACTGAATCACTGGCGA 1500
DB	1613	ACCTTGGCGCTGCTCTCAGGCATCAGCTGGGGACTCTACCTGAACTGAATCACTGGCGA 1672
Qy	1501	TACATCTACCCACTGGGTGTCTTTCTTGTGCCCCCTGCTGGCTGTCTGGGTGCTGCTC 1560
DB	1673	TACATCTACCCACTGGGTGTCTTTCTTGTGCCCCCTGCTGGCTGTCTGGGTGCTGCTC 1732
Qy	1561	GCCCCGACCAAGTCCAGGCCAACAGGGAGGTGTGACTCGGCTCTGGGAGCTGTATCATT 1620
DB	1733	GCCCCGACCAAGTCCAGGCCAACAGGGAGGTGTGACTCGGCTCTGGGAGCTGTATCATT 1792
Qy	1621	GGCATGGCCATCAGCAGTGTGGGGGGCTCATCTGGACAAAGACTGTCTCAGACCCCAAC 1680
DB	1793	GGCATGGCCATCAGCAGTGTGGGGGGCTCATCTGGACAAAGACTGTCTCAGACCCCAAC 1852
Qy	1681	TTTGTGGGATGGCTGCTCTCACGCCCTGTGATTAATGGTGTGGGGGAACTGTGGCGCA 1740
DB	1853	TTTGTGGGATGGCTGCTCTCACGCCCTGTGATTAATGGTGTGGGGGAACTGTGGCGCA 1912
Qy	1741	GTGCCAGCCAGCGGCACTCCACCTTCTGTGACATGAATGGAAATGCCGGAGAGAACTCT 1800
DB	1913	GTGCCAGCCAGCGGCACTCCACCTTCTGTGACATGAATGGAAATGCCGGAGAGAACTCT 1972
Qy	1801	GAGCAAGCTCTCGCCGCTGTCCCAGTCCTGTACACCTTCTCAGCCCTGATGTGAAT 1860
DB	1973	GAGCAAGCTCTCGCCGCTGTCCCAGTCCTGTACACCTTCTCAGCCCTGATGTGAAT 2032
Qy	1861	TCTCGCTCACCGCGGCGCTCTCTCTCTGTGTGTCAGGACACCTGTGTCTCTAC 1920
DB	2033	TCTCGCTCACCGCGGCGCTCTCTCTCTGTGTGTCAGGACACCTGTGTCTCTAC 2092
Qy	1921	ACCATCAGCTGTATGCAAGGGCGGGCACACCCACCTCACACTCATCTCATCTCTAT 1980
DB	2093	ACCATCAGCTGTATGCAAGGGCGGGCACACCCACCTCACACTCATCTCATCTCTAT 2152
Qy	1981	ATGACAGCTGCACTGCTCAGGTGCTGATATTCTCTGTACATGCCAGACTGGATGGTCAC 2040
DB	2153	ATGACAGCTGCACTGCTCAGGTGCTGATATTCTCTGTACATGCCAGACTGGATGGTCAC 2212
Qy	2041	TGGATGTGGGGCGGGGGCCCTGGACCCGGACACTTCTCCATCCCATACTTGACTGCTCTG 2100
DB	2213	TGGATGTGGGGCGGGGGCCCTGGACCCGGACACTTCTCCATCCCATACTTGACTGCTCTG 2272
Qy	2101	GGGGACCTGTGGACTGGGCTCTAGACTCAGCTTCATGTCTGGCTCATAGGG 2160
DB	2273	GGGGACCTGTGGACTGGGCTCTAGACTCAGCTTCATGTCTGGCTCATAGGG 2332
Qy	2161	GACCGAGACACGGATGTCGGGACTAGCTTGGTCACTCAACATTTCCCCATCTCTGC 2220
DB	2333	GACCGAGACACGGATGTCGGGACTAGCTTGGTCACTCAACATTTCCCCATCTCTGC 2392
Qy	2221	ACTTTCTATTGAAATTTCCTTTGTCTCCCTGTCTCTCCACCCACACTCCACCC 2280
DB	2393	ACTTTCTATTGAAATTTCCTTTGTCTCCCTGTCTCTCCACCCACACTCCACCC 2452
Qy	2281	TCTTCTAGGACTCACTTGATACCAAACTTCATTATTTCAATGGAAATTTTATAC 2340
DB	2453	TCTTCTAGGACTCACTTGATACCAAACTTCATTATTTCAATGGAAATTTTATAC 2512
Qy	2341	ATTGAGCCAAGTTGTATAGCAAGAATTGGGAAACAGATGGCTGAGATAAGCAGTA 2400
DB	2513	ATTGAGCCAAGTTGTATAGCAAGAATTGGGAAACAGATGGCTGAGATAAGCAGTA 2572

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Qy 2401 CAAGTAGGTTTGGAGACAATACCAAGTGCAGTTCATGGGGGTGCCTCAGGTGATG 2460  
 |||||  
 Db 2573 CAAGTAGGTTTGGAGACAATACCAAGTGCAGTTCATGGGGGTGCCTCAGGTGATG 2632

Qy 2461 TGGACTGGACAGGGAGTTTCCTGAGATCTGGGACATGGGGTTGGCTTAGCAAC 2520  
 |||||  
 Db 2633 TGGACTGGACAGGGAGTTTCCTGAGATCTGGGACATGGGGTTGGCTTAGCAAC 2692

Qy 2521 CTGCTTGGCCATAATGAGAAACCCCTTGTAAAGTGGGCTCTGGATTTTGTTTT 2580  
 |||||  
 Db 2693 CTGCTTGGCCATAATGAGAAACCCCTTGTAAAGTGGGCTCTGGATTTTGTTTT 2752

Qy 2581 CTTTTATCTGTTTATTTGTTTGTGTTGGTGAACAGAGGGACAGAAGATAAGT 2640  
 |||||  
 Db 2753 CTTTTATCTGTTTATTTGTTTGTGTTGGTGAACAGAGGGACAGAAGATAAGT 2812

Qy 2641 AACACTCCAAACAGACACATTTGAGAAGTGACCAACTTCAAAGCTCTGGACAG 2700  
 |||||  
 Db 2813 AACACTCCAAACAGACACATTTGAGAAGTGACCAACTTCAAAGCTCTGGACAG 2872

Qy 2701 GAGACACCTGCTCCAGGGCCCTGTGATCCAGTCTGTTCTGGCCCTCTGGACCTAAG 2760  
 |||||  
 Db 2873 GAGACACCTGCTCCAGGGCCCTGTGATCCAGTCTGTTCTGGCCCTCTGGACCTAAG 2932

Qy 2761 CGTCCCACTCCAGAAAGAGTAAGGTGACTGACTTTCAATTGTCACATGCCCT 2820  
 |||||  
 Db 2933 CGTCCCACTCCAGAAAGAGTAAGGTGACTGACTTTCAATTGTCACATGCCCT 2992

Qy 2821 GTTCAATGGCCTGGCACACATCAACACCCCTCCCTGATCATTTCCAGTGTAGTC 2880  
 |||||  
 Db 2993 GTTCAATGGCCTGGCACACATCAACACCCCTCCCTGATCATTTCCAGTGTAGTC 3052

Qy 2881 TATCCAGGAAAAATGGAACAGTGCACCTCTCCCTGTTGACCCATGTCCACCTATTGG 2940  
 |||||  
 Db 3053 TATCCAGGAAAAATGGAACAGTGCACCTCTCCCTGTTGACCCATGTCCACCTATTGG 3112

Qy 2941 TTCCCCAAATCCACATCTCCCTGGGCCAGATGACTTTGTCCTCCCTGGGCCAGATT 3000  
 |||||  
 Db 3113 TTCCCCAAATCCACATCTCCCTGGGCCAGATGACTTTGTCCTCCCTGGGCCAGATT 3172

Qy 3001 TTGTCCTCTTCAACCTTCATCTCAAAATGTCCTCTAACACTACCTTCCCCAGAGCTTG 3060  
 |||||  
 Db 3173 TTGTCCTCTTCAACCTTCATCTCAAAATGTCCTCTAACACTACCTTCCCCAGAGCTTG 3232

Qy 3061 CGAGGTTGGTTTGAGATTAGGTGAGCTGGGATGGGGTATGGTTGGAGTT 3120  
 |||||  
 Db 3233 CGAGGTTGGTTTGAGATTAGGTGAGCTGGGATGGGGTATGGGAATGGTTGGAGTT 3292

Qy 3121 GAGGACACACAGGTGTCATGGTGCCTTCTCTGGAGACATATCACCTGGTC 3180  
 |||||  
 Db 3293 GAGGACACACAGGTGTCATGGTGCCTTCTCTGGAGACATATCACCTGGTC 3352

Qy 3181 CCTGGACCCGTGACTCTTAAATTAATCTGGTCTGTCATGGCATAGAGGTCACTTTTC 3240  
 |||||  
 Db 3353 CCTGGACCCGTGACTCTTAAATTAATCTGGTCTGTCATGGCATAGAGGTCACTTTTC 3412

Qy 3241 CTCTTCTTGCTCTACCCACAAACATCACCACATCTTATCTGGTCATTTAGCAAT 3300  
 |||||  
 Db 3413 CTCTTCTTGCTCTACCCACAAACATCACCACATCTTATCTGGTCATTTAGCAAT 3472

Qy 3301 ATGCAGCCTCCGCAAGATGAGCTCTCTCAGACAGCATGGCTGAAACATTCTTGAG 3360  
 |||||  
 Db 3473 ATGCAGCCTCCGCAAGATGAGCTCTCTCAGACAGCATGGCTGAAACATTCTTGAG 3532

Qy 3361 CAATAT-TTATTGAGTGCCTACTATGTGTTAGGTACTGTGCCAGGCACTGATAAGCAGT 3419  
 |||||  
 Db 3533 CAATATCATATTGAGTGCCTACTATGTGTTAGGTACTGTGCCAGGCACTGATAAGCAGT 3592

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Qy	3420	GGTAAGGGAAACACAGCTAAACCTCACCTATTCTCCAGGTTACAAAGGOCATGTGCC 3479
Db	3593	GGTAAGGGAAACACAGCTAAACCTCACCTATTCTCCAGGTTACAAAGGOCATGTGCC 3652
Qy	3480	CTTGAAATCTGGCAAGAAAGTTCCCTCTGTAACTATTGATCTACTTCAAGCCAGA 3539
Db	3653	CTTGAAATCTGGCAAGAAAGTTCCCTCTGTAACTATTGATCTACTTCAAGCCAGA 3712
Qy	3540	TTCTCTGCCTTTCTCCAGACCCCTACTCTGTGACTGCTGACCAAGCTAGA 3599
Db	3713	TTCTCTGCCTTTCTCCAGACCCCTACTCTGTGACTGCTGACCAAGCTAGA 3772
Qy	3600	GCCACCGCCCCATTGCTCAACCAGATTATTTCCTAAACGACCCCTCCATATCCC 3659
Db	3773	GCCACCGCCCCATTGCTCAACCAGATTATTTCCTAAACGACCCCTCCATATCCC 3832
Qy	3660	TTGCCCTCCACCTCTCTTACAGCACCCTAAAGAGGATTAGAACTAGCAGGGTGAC 3719
Db	3833	TTGCCCTCCACCTCTCTTACAGCACCCTAAAGAGGATTAGAACTAGCAGGGTGAC 3892
Qy	3720	TCACTCTGGTTGTTCTACTTTCTCTGCCCTAGCACAAAAATTGGGAGAAAATGGAGCTC 3779
Db	3893	TCACTCTGGTTGTTCTACTTTCTCTGCCCTAGCACAAAAATTGGGAGAAAATGGAGCTC 3952
Qy	3780	CATCCGCAGTCACAGCTGTACAGATCTGGGATTGGATGTAGGCCTTTCTAACTCTC 3839
Db	3953	CATCCGCAGTCACAGCTGTACAGATCTGGGATTGGATGTAGGCCTTTCTAACTCTC 4012
Qy	3840	T 3840
Db	4013	T 4013

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement may be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-TAM DAVIS whose telephone number is 571-272-0830. The examiner can normally be reached on 9:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LARRY HELMS can be reached on 571-272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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